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DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, DC 20350-2000

IN REPLY REFER TO
OPNAVINST 9410.1A
OP-942
28 MAY 1986

OPNAV INSTRUCTION 9410.1A

From: Chief of Naval Operations

Subj: INTEROPERABILITY OF TACTICAL COMMAND, CONTROL AND COMMUNICATIONS SYSTEMS

Ref: (a) DoD Directive 4630.5 of 9 Oct 85 (NOTAL)
(b) Navy JINTACCS Program Management Plan (NOTAL)
(c) Navy JINTACCS Configuration Management Plan (NOTAL)

1. Purpose. To provide revised policy and assign responsibilities for the establishment, maintenance, and certification of interoperability among U. S. Navy tactical Command, Control and Communication (C^3) systems which utilize Tactical Digital Information Links (TADILs) or Message Text Formats (MTF) for intersite or interplatform communications. This instruction is a complete revision and should be reviewed in its entirety.

2. Cancellation. OPNAVINST 9410.1.

3. Background. Reference (a) directs the Services to take necessary action to attain and maintain tactical C^3I systems interoperability through Joint and Allied Service coordination, taking into consideration interoperability requirements, military effectiveness, and resource management. This directive, together with references (b) and (c), outlines Navy policy and direction to meet that Department of Defense tasking.

4. Definitions

a. Interoperability is defined in Department of Defense Directive 5000.3 of 26 December 1979 as "The ability of systems, units, or forces to provide services to, and accept services from, other systems, units or forces, and to use the services so exchanged to enable them to operate effectively together." For tactical C^3 systems, interoperability can be further defined as the ability to exchange selected data between operational systems resulting in an equivalent understanding by all participants in the data exchange.

b. A tactical C^3 system is a combination of people, procedures, hardware, and software which, acting together, provides an organized and interconnected means for inputting, processing, and outputting data in a tactical application.

c. A TADIL is a Joint Chiefs of Staff (JCS) approved standardized communications link suitable for transmission of

machine-only readable, digital information. A TADIL is characterized by its standardized, character-oriented message formats and transmission characteristics.

d. MTF is a JCS approved standardized communications method utilizing man/machine readable messages. MTF is characterized by its standardized, character-oriented message formats and transmission characteristics.

5. Discussion

a. Requirements for interoperability of U. S. Navy tactical C^3 systems include exchange of data with other U. S. Navy systems, with tactical systems of the other U. S. Armed Services (joint interoperability) pursuant to directives of the JCS, and with systems of the forces of Allied nations (combined interoperability) per international agreeements. U. S. Navy systems affected by these requirements include combat direction systems and tactical command and control installations in surface ships, aircraft, submarines, and shore facilities which incorporate a TADIL or MTF as part of the system.

b. The TADIL and MTF messages are managed for the Joint Chiefs of Staff by the Joint Tactical Command, Control and Communications Agency (JTC^3A) within the Joint Interoperability of Tactical Command and Control Systems (JINTACCS) program.

c. Interoperability among tactical C^3 systems requires:

(1) The development of data exchange requirements by mission area.

(2) The establishment of compatible technical characteristics of data format and transmission rules.

(3) The establishment of detailed message standards interoperability requirements.

(4) The translation of the message standards into minimum implementation requirements.

(5) The testing of interfaced tactical data systems to verify that they have properly implemented the established message standards.

(6) The certification of the tactical data system's interoperability based upon the analysis and evaluation of test results.

(7) The configuration management of the message standards.

(8) The testing of changes to the message standards to verify that the changes have been correctly designed and to validate advantages claimed for proposed changes.

(9) The testing of tactical C^3 systems to ensure that changes to the message standards have been properly implemented, and that the affected systems remain qualified for certification,

(10) The establishment of supporting operating procedures.

d. Navy Tactical Interoperability Support Activity (NTISA) was established on 1 July 1977 to establish Navy tactical C^3 systems interoperability criteria, develop interface design standards, certify interoperability of Navy tactical C^3 systems, perform required data link message support functions, and perform such other interoperability functions or tasks as may be necessary.

6. Policy

a. NTISA is the primary U. S. Navy activity responsible for planning, establishing and maintaining Navy, Joint and Combined C^3 systems interoperability. This responsibility includes:

(1) Specification of data exchange requirements.

(2) Configuration control of Navy interoperability documentation data formats and message standards.

(3) Certification of tactical C^3 systems interoperability.

b. The Commander, Naval Sea Systems Command (COMNAVSEASYSCOM); the Commander, Naval Air Systems Command (COMNAVAIRSYSCOM); and the Commander, Space and Naval Warfare Systems Command (COMSPAWARSYSCOM) shall ensure that all tactical C^3 systems over which they have cognizance are developed and maintained in compliance with the established data exchange requirements, data formats, and message standards. Any program not in compliance will not be certified for operational use. Where fleet support commitments require program delivery prior to interoperability certification, the forwarding letter to the fleet shall explictly identify the program as "interim, awaiting final interoperability certficiation."

7. Responsibilities

a. NTISA

(1) Develop tactical C^3 system interoperability requirements in concert with operational commanders and platform sponsors.

(2) Develop operational specifications, associated implementation schedules and required funding profiles which fulfill the interoperability requirements in coordination with the Systems Commands and platform sponsors for approval by the Chief of Naval Operations.

(3) Establish and chair the necessary permanent and ad hoc committees and working groups required to accomplish the above. Platform sponsors will be represented on these permanent and ad hoc committees and working groups as necessary and appropriate. Operational Commanders and the Systems Commands will provide operational and technical inputs to these committees and groups as appropriate.

(4) Establish the organization and criteria necessary to verify compliance with interoperability requirements and, having verified compliance, certify to CNO the interoperability of tactical C^3 system software deliverable for fleet use.

(5) Provide to CNO the technical and operational inputs necessary to support CNO in Joint and Combined fora dealing with tactical C^3 system standards and interoperability.

(6) Ensure that all Navy tactical data system interoperability documentation is developed and maintained. NTISA will also control distribution of this documentation.

(7) Develop plans directing Navy participation and assigning Navy responsibilities in support of Navy, Joint, and Combined interoperability programs in coordination with the Systems Commands and Principal Development Activities (PDAs).

(8) Ensure, through the development and conduct of appropriate testing, that changes to message standards are correctly designed to accomplish their specified purposes, and that systems implementing such changes remain certified.

b. The Systems Commands shall ensure that the Navy tactical C^3 system Principal Development Activities (PDAs) comply with the interoperability specifications.

c. Support to NTISA by Navy tactical data system development activities shall be arranged through their command or their respective Systems Commands or designated representative(s). Such support may include assistance in testing, provision of test facilities, or participation in working groups and committees. Tasking procedures, scheduling and funding agreements shall be as mutually established by CNO and the Systems Commands.

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Director,
Space, Command and [illegible]

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